IN THE CLAIMS:

Please substitute the following claims for the same-numbered claims in the application:

1. (Currently Amended) A system for forming a silicide on a silicon material, said system comprising:

a vacuum chamber adapted to hold said silicon material under a vacuum environment;

a metal formation tool ~~connected to~~ within said vacuum chamber and being adapted to form metal on said silicon material while said silicon material is under said vacuum environment within said vacuum chamber; and

a heating tool ~~connected to~~ within said vacuum chamber and being adapted to heat said silicon while said silicon material is under said vacuum environment within said vacuum chamber, wherein said heating tool comprises a heated chuck within said vacuum chamber and is adapted to hold said silicon material, and wherein said heated chuck comprises a resistive heater.

2. (Original) The system in claim 1, further comprising a etch tool external to said vacuum chamber and being adapted to perform etching of said metal after said silicon material is removed from said vacuum chamber.

3. (Original) The system in claim 1, wherein said vacuum chamber comprises a plurality of connected vacuum chambers adapted to maintain said silicon material in a continuous vacuum environment while said metal formation tool forms said metal and while said heating tool heats said silicon material.

4. (Previously Presented) The system in claim 3, wherein said vacuum chambers comprise:

a first vacuum chamber to which said metal formation tool is attached;

a second vacuum chamber to which said heating tool is attached; and

a third vacuum chamber adapted to maintain said vacuum environment while transporting said silicon material from said first vacuum chamber to said second vacuum chamber.

5. (Original) The system in claim 1, wherein said heating tool is adapted to heat said silicon material to temperatures between 300°C and 400 °C to form a metal rich silicide or between temperatures of 450 °C and 550 °C to form a monosilicide.

6. (Cancelled).

7. (Currently Amended) The system in claim 6 1, wherein said second heating tool is adapted to heat said silicon material to temperatures above 600 °C to form a disilicide.

8. (Currently Amended) A system for forming a silicide on a silicon material, said system comprising:

a vacuum chamber adapted to hold said silicon material under a vacuum environment;

a metal formation tool ~~connected to~~ within said vacuum chamber and being adapted to deposit metal on said silicon material while said silicon material is under said vacuum environment within said vacuum chamber; ~~and~~

a heating tool ~~connected to~~ within said vacuum chamber and being adapted to heat said silicon simultaneously while said metal formation tool forms said metal on said silicon material such that a silicide material is formed as said metal is deposited on said silicon material, wherein said heating tool comprises a heated chuck within said vacuum chamber and is adapted to hold said silicon material; and

a second heating tool external to said vacuum chamber.

9. (Cancelled).

10. (Cancelled).

11. (Original) The system in claim 8, further comprising a etch tool external to said vacuum chamber and being adapted to perform etching of said metal after said silicon material is removed from said vacuum chamber.

12. (Cancelled).

13. (Cancelled).

14. (Currently Amended) The system in claim ~~13~~ 8, wherein said second heating tool is adapted to heat said silicon material to temperatures above 600 °C to form a disilicide.

15-20. (Canceled).

21. (Previously Presented) The system in claim 4, wherein said first vacuum chamber and said second vacuum chamber are outside of said third vacuum chamber.

22. (Previously Presented) The system in claim 8, wherein said vacuum chamber comprises a plurality of connected vacuum chambers adapted to maintain said silicon material in a continuous vacuum environment while said metal formation tool forms said metal and while said heating tool heats said silicon material, wherein said vacuum chambers comprise:

a first vacuum chamber to which said metal formation tool is attached;

a second vacuum chamber to which said heating tool is attached; and

a third vacuum chamber adapted to maintain said vacuum environment while transporting said silicon material from said first vacuum chamber to said second vacuum chamber,

wherein said first vacuum chamber and said second vacuum chamber are outside of said third vacuum chamber.

23. (Currently Amended) A system for forming a silicide on a silicon material, said system comprising:

chambers comprising a first vacuum chamber, a second vacuum chamber, and a third vacuum chamber, wherein said chambers are adapted to hold said silicon material under a vacuum environment;

a metal formation tool connected to said chambers and being adapted to deposit metal on said silicon material while said silicon material is under said vacuum environment within said chambers; ~~and~~

a heating tool connected to said chambers and being adapted to heat said silicon simultaneously while said metal formation tool forms said metal on said silicon material such that a silicide material is formed as said metal is deposited on said silicon material, wherein said heating tool comprises a heated chuck within said chambers and is adapted to hold said silicon material, wherein said heated chuck comprises a resistive heater, and wherein said heated chuck and said metal formation tool are in the same chamber; and

a second heating tool external to said vacuum chamber.

24. (Cancelled).

25. (Previously Presented) The system in claim 23, further comprising a etch tool external to said chambers and being adapted to perform etching of said metal after said silicon material is removed from said chambers.

26. (Cancelled).

27. (Currently Amended) The system in claim ~~26~~ 23, wherein said second heating tool is adapted to heat said silicon material to temperatures above 600 °C to form a disilicide.

28. (Previously Presented) The system in claim 23, wherein said metal formation tool is attached to said first vacuum chamber,

wherein said heating tool is attached to said second vacuum chamber,

wherein said third vacuum chamber is adapted to maintain said vacuum environment while transporting said silicon material from said first vacuum chamber to said second vacuum chamber, and

wherein said first vacuum chamber and said second vacuum chamber are outside of said third vacuum chamber.